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(Original Signature of Member)

116TH CONGRESS  
1ST SESSION

**H. R.** \_\_\_\_\_

To require the Secretary of Defense to carry out the Direct Air Capture and Blue Carbon Removal Technology Program, and for other purposes.

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IN THE HOUSE OF REPRESENTATIVES

Mr. BEYER introduced the following bill; which was referred to the Committee  
on \_\_\_\_\_

\_\_\_\_\_  
**A BILL**

To require the Secretary of Defense to carry out the Direct Air Capture and Blue Carbon Removal Technology Program, and for other purposes.

1       *Be it enacted by the Senate and House of Representa-*  
2       *tives of the United States of America in Congress assembled,*

3       **SECTION 1. SHORT TITLE.**

4       This Act may be cited as the “Securing Energy for  
5       our Armed Forces Using Engineering Leadership Act of  
6       2019” or the “SEA FUEL Act of 2019”.

1 **SEC. 2. DIRECT AIR CAPTURE AND BLUE CARBON RE-**  
2 **MOVAL TECHNOLOGY PROGRAM.**

3 (a) PROGRAM REQUIRED.—

4 (1) IN GENERAL.—The Secretary of Defense, in  
5 coordination with the Secretary of Homeland Secu-  
6 rity, the Secretary of Energy, and the heads of such  
7 other Federal agencies as the Secretary of Defense  
8 considers appropriate, shall carry out a program on  
9 research, development, testing, evaluation, study,  
10 and demonstration of technologies related to blue  
11 carbon capture and direct air capture.

12 (2) PROGRAM GOALS.—The goals of the pro-  
13 gram established under paragraph (1) are as follows:

14 (A) To develop technologies that capture  
15 carbon dioxide from seawater and the air to  
16 turn such carbon dioxide into clean fuels to en-  
17 hance fuel and energy security.

18 (B) To develop and demonstrate tech-  
19 nologies that capture carbon dioxide from sea-  
20 water and the air to reuse such carbon dioxide  
21 to create products for military uses.

22 (C) To develop direct air capture tech-  
23 nologies for use—

24 (i) at military installations or facilities  
25 of the Department of Defense; or

1 (ii) in modes of transportation by the  
2 Navy or the Coast Guard.

3 (3) PHASES.—The program established under  
4 paragraph (1) shall be carried out in two phases as  
5 follows:

6 (A) The first phase shall consist of re-  
7 search and development and shall be carried out  
8 as described in subsection (b).

9 (B) The second phase shall consist of test-  
10 ing and evaluation and shall be carried out as  
11 described in subsection (c), if the Secretary de-  
12 termines that the results of the research and  
13 development phase justify implementing the  
14 testing and evaluation phase.

15 (4) DESIGNATION.—The program established  
16 under paragraph (1) shall be known as the “Direct  
17 Air Capture and Blue Carbon Removal Technology  
18 Program” (in this section referred to as the “Pro-  
19 gram”).

20 (b) RESEARCH AND DEVELOPMENT PHASE.—

21 (1) IN GENERAL.—During the research and de-  
22 velopment phase of the Program, the Secretary of  
23 Defense shall conduct research and development in  
24 pursuit of the goals set forth in subsection (a)(2).

1           (2) DIRECT AIR CAPTURE.—The research and  
2           development phase of the Program may include, with  
3           respect to direct air capture, a front end engineering  
4           and design study that includes an evaluation of di-  
5           rect air capture designs to produce fuel for use—

6                   (A) at military installations or facilities of  
7           the Department of Defense; or

8                   (B) in modes of transportation by the  
9           Navy or the Coast Guard.

10          (3) DURATION.—The Secretary shall carry out  
11          the research and development phase of the Program  
12          during a four-year period commencing not later than  
13          90 days after the date of the enactment of this Act.

14          (4) GRANTS AUTHORIZED.—The Secretary may  
15          carry out the research and development phase of the  
16          Program through the award of grants to private en-  
17          tities and eligible laboratories.

18          (5) REPORT REQUIRED.—Not later than 180  
19          days after the date of the completion of the research  
20          and development phase of the Program, the Sec-  
21          retary shall submit to Congress a report on the re-  
22          search and development carried out under the Pro-  
23          gram.

24          (6) AUTHORIZATION OF APPROPRIATIONS.—  
25          There are authorized to be appropriated to carry out

1 the research and development phase of the Pro-  
2 gram—

3 (A) \$8,000,000 for fiscal year 2020; and

4 (B) \$10,000,000 for each of fiscal years  
5 2021 through 2023.

6 (c) TESTING AND EVALUATION PHASE.—

7 (1) IN GENERAL.—During the testing and eval-  
8 uation phase of the Program, the Secretary shall, in  
9 pursuit of the goals set forth in subsection (a)(2),  
10 conduct tests and evaluations of the technologies re-  
11 searched and developed during the research and de-  
12 velopment phase of the Program.

13 (2) DIRECT AIR CAPTURE.—The testing and  
14 evaluation phase of the Program may include dem-  
15 onstration projects for direct air capture to produce  
16 fuel for use—

17 (A) at military installations or facilities of  
18 the Department of Defense; or

19 (B) in modes of transportation by the  
20 Navy or the Coast Guard.

21 (3) DURATION.—Subject to subsection  
22 (a)(3)(B), the Secretary shall carry out the testing  
23 and evaluation phase of the Program during the  
24 three-year period commencing on the date of the  
25 completion of the research and development phase

1 described in subsection (b), except that the testing  
2 and evaluation phase of the Program with respect to  
3 direct air capture may commence at such time after  
4 a front end engineering and design study dem-  
5 onstrates to the Secretary that commencement of  
6 such phase is appropriate.

7 (4) GRANTS AUTHORIZED.—The Secretary may  
8 carry out the testing and evaluation phase of the  
9 Program through the award of grants to private en-  
10 tities and eligible laboratories.

11 (5) LOCATIONS.—The Secretary shall carry out  
12 the testing and evaluation phase of the Program at  
13 military installations or facilities of the Department  
14 of Defense.

15 (6) REPORT REQUIRED.—Not later than Sep-  
16 tember 30, 2026, the Secretary shall submit to Con-  
17 gress a report on the findings of the Secretary with  
18 respect to the effectiveness of the technologies tested  
19 and evaluated under the Program.

20 (7) AUTHORIZATION OF APPROPRIATIONS.—  
21 There is authorized to be appropriated to carry out  
22 the testing and evaluation phase of the Program  
23 \$15,000,000 for each of fiscal years 2024 through  
24 2026.

25 (d) DEFINITIONS.—In this section:

1           (1) BLUE CARBON CAPTURE.—The term “blue  
2       carbon capture” means the removal of dissolved car-  
3       bon dioxide from seawater through engineered or in-  
4       organic processes, including filters, membranes, or  
5       phase change systems.

6           (2) DIRECT AIR CAPTURE.—

7               (A) IN GENERAL.—The term “direct air  
8       capture”, with respect to a facility, technology,  
9       or system, means that the facility, technology,  
10      or system uses carbon capture equipment to  
11      capture carbon dioxide directly from the air.

12            (B) EXCLUSION.—The term “direct air  
13      capture” does not include any facility, tech-  
14      nology, or system that captures carbon diox-  
15      ide—

16                   (i) that is deliberately released from a  
17                   naturally occurring subsurface spring; or

18                   (ii) using natural photosynthesis.

19           (3) ELIGIBLE LABORATORY.—The term “eligi-  
20      ble laboratory” means—

21               (A) a National Laboratory (as defined in  
22       section 2 of the Energy Policy Act of 2005 (42  
23       U.S.C. 15801)); or

24               (B) a laboratory of the Department of De-  
25      fense.